THE MARYLAND PERINATAL SYSTEM STANDARDS

Revised October 2004

Recommendations of the Perinatal Clinical Advisory Committee

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THE MARYLAND PERINATAL SYSTEM STANDARDS
INFORMATION DOCUMENT, REVISED OCTOBER 2004

STANDARD	TITLE	SUMMARY
I	Organization	Refers to the administration of a hospital perinatal program
II	Obstetrical Unit Capabilities	Refers to the resources of equipment, supplies, and personnel needed for the delivery unit within the hospital
III	Neonatal Unit Capabilities	Refers to the resources of equipment, supplies, and personnel needed for the neonatal units within the hospital
IV	Obstetric Personnel	Describes the roles, responsibilities, and availability of obstetric personnel in the perinatal program
V	Pediatric Personnel	Describes the roles, responsibilities, and availability of pediatric personnel in the perinatal program
VI	Other Personnel	Describes the roles, responsibilities, and availability of other personnel in the perinatal program
VII	Laboratory	Refers to the resources of equipment, supplies, and personnel needed for the laboratory unit within the hospital
VIII	Diagnostic Imaging Capabilities	Refers to the resources of equipment, supplies, and personnel needed for diagnostic imaging capabilities within the hospital
IX	Equipment	Refers to the availability of specific equipment needed for the perinatal program
X	Medications	Refers to the availability of specific medications needed for the perinatal program
XI	Education Programs	Refers to the need for education for all health care providers involved in providing

		perinatal care and to the roles and responsibilities of the hospitals in education
XII	Performance Improvement	Describes the performance improvement process that is required for hospital perinatal programs
XIII	Policies and Protocols	Identifies the administrative and medical policies and protocols that must be in place for a perinatal program

LIST OF DEFINITIONS

I Level I hospitals have perinatal programs that provide basic care to pregnant women and infants, as described by these standards. These hospitals provide delivery room and normal newborn care for stable infants ≥ 35 weeks gestation. Maternal care is limited to term and near-term gestations that are maternal risk appropriate. Board-certified obstetricians or family medicine physicians with obstetrical privileges supervise the delivery services. Other than emergency stabilization, the neonatal units do not provide mechanical ventilation. Board-certified pediatricians or family medicine physicians supervise these units. These neonatal units do not provide pediatric subspecialty or neonatal surgical specialty services. These hospitals do not receive primary infant or maternal referrals.

IIA Level IIA hospitals have perinatal programs that provide specialty care to pregnant women and infants, as described by these standards. These hospitals provide delivery room and specialized care for stable infants ≥ 1,500 grams or ≥ 32 weeks gestation. Maternal care is limited to term and preterm gestations that are maternal risk appropriate. Board-certified obstetricians supervise the delivery services. The neonatal units are supervised by Board-certified pediatricians. The neonatal units may provide conventional mechanical ventilation only in stabilization situations. They do not provide pediatric subspecialty or neonatal surgical specialty services. These hospitals do not receive primary infant or maternal referrals.

IIB Level IIB hospitals have perinatal programs that provide specialty care to pregnant women and infants, as described by these standards. These hospitals provide delivery room and acute specialized care for infants ≥ 1,500 grams or ≥ 32 weeks gestation. Maternal care is limited to term and preterm gestations that are maternal risk appropriate. Board-certified obstetricians supervise the delivery services. The neonatal units are supervised by at least one Board-certified neonatal-perinatal medicine subspecialist. The neonatal units may provide conventional mechanical ventilation, limited in technique and duration. The neonatal units may provide limited pediatric subspecialty services. They do not provide neonatal surgical specialty services. These hospitals do not receive primary infant or maternal referrals.

IIIA Level IIIA hospitals have perinatal programs that provide subspecialty care for pregnant women and infants, as described by these standards. These hospitals provide acute delivery room and neonatal intensive care unit (NICU) care for infants ≥ 1,000 grams or ≥ 28 weeks gestation. Maternal care spans the range of normal term gestation care to the management of moderately complex maternal complications and moderate prematurity. Board-certified obstetricians supervise the delivery services. Board-certified maternal-fetal medicine specialists supervise high-risk

obstetrical services, if the hospital accepts maternal transports. The neonatal units are supervised by Board-certified neonatal-perinatal medicine subspecialists and offer continuous availability of neonatologists. The neonatal units provide conventional (e.g., tidal volume or continuous airway pressure) mechanical ventilation modes only. Additionally, the neonatal units may have available some pediatric subspecialty services. In general, they do not provide specialty neonatal surgical care. These hospitals may provide maternal or neonatal transport in conjunction with an outreach educational program.

IIIB Level IIIB hospitals have perinatal programs that provide subspecialty care for pregnant women and infants, as described by these standards. These hospitals provide acute delivery room and NICU care for infants of all birth weights and gestational ages. Maternal care spans the range of normal term gestation care to the management of extreme prematurity and moderately complex maternal complications. Board-certified obstetricians supervise the delivery services. Board-certified maternal-fetal medicine specialists supervise high-risk obstetrical services. The neonatal units are supervised by Board-certified neonatal-perinatal medicine subspecialists and offer continuous availability of neonatologists. The neonatal units provide multiple modes of neonatal ventilation and some pediatric subspecialty services. Neonatal surgical specialty services may be available. These hospitals may provide maternal or neonatal transport in conjunction with an outreach educational program.

IIIC Level IIIC hospitals have perinatal programs that provide comprehensive subspecialty obstetrical and neonatal care services, as described by these standards. These hospitals provide acute delivery room and NICU care for infants of all birth weights and gestational ages. Board-certified maternal-fetal medicine subspecialists supervise the units and their services are continuously available. Maternal care provided spans the range of normal term gestation care to that of highly complex or critically ill mothers. In addition, the obstetrical services include management of fetuses who are extremely premature or have complex problems that render significant risk of preterm, delivery, and postnatal complications. The neonatal units are supervised by Board-certified neonatal-perinatal subspecialists and offer continuous availability of neonatologists. Advanced modes of neonatal ventilation and life-support are provided, including high frequency ventilation, nitric oxide and/or extracorporeal membrane oxygenation (ECMO). These neonatal units provide extensive pediatric subspecialty services. Additionally, extensive pediatric subspecialty surgical services are continuously available, including pediatric cardio-thoracic open-heart surgery and pediatric neurosurgery. These hospitals provide readily available specialized maternal and neonatal transport capability and have extensive statewide perinatal educational outreach programs in both specialties.

E	Essential requirement for level of perinatal center
O	Optional requirement for level of perinatal center
NA	Not Applicable

Board-certified means a physician certified by an American Board of Medical Specialties Member Board.

NOTE: More details regarding the content of care for each perinatal level of care are contained in the *Guidelines for Perinatal Care, 5th Edition*, American Academy of Pediatrics and American College of Obstetricians and Gynecologists, 2002.

	I	IIA	IIB	IIIA	IIIB	IIIC
STANDARD I. ORGANIZATION						
1.1 The hospital's Board of Directors, administration, and medical and nursing staffs shall demonstrate commitment to its specific level of perinatal center designation and to the care of perinatal patients. This commitment shall be demonstrated by:						
a) A Board resolution that the hospital agrees to meet the Maryland Perinatal System Standards for its specific level of designation	E	E	E	E	E	E
b) Participation in the Maryland Perinatal System, as described by this document, including submission of patient care data to the Maryland Department of Health and Mental Hygiene (DHMH) and the Maryland Institute for Emergency Medical Services Systems (MIEMSS), as appropriate, for system and quality management	E	E	E	E	E	E
c) Assurance that all perinatal patients will receive medical care commensurate with the level of the hospital's designation	E	E	E	E	E	E
d) A Board resolution, bylaws, contracts, budgets -- all specific to the perinatal program -- indicating the hospital's commitment to the financial, human, and physical resources and to the infrastructure that are necessary to support the hospital's level of perinatal center designation	E	E	E	E	E	E
1.2 The hospital must be licensed by the Maryland Department of Health and Mental Hygiene (DHMH) as an acute care hospital.	E	E	E	E	E	E

		I	IIA	IIB	IIIA	IIIB	IIIC
1.3	The hospital must be accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).	E	E	E	E	E	E
1.4	The hospital must have a certificate of need (CON) issued by the Maryland Health Care Commission (MHCC) for its neonatal intensive care unit and/or approval from the Health Services Cost Review Commission (HSCRC) for a neonatal intensive care unit cost center.	NA	NA	NA	E	E	E
1.5	The hospital must obtain and maintain current equipment and technology, as described in these standards, to support optimal perinatal care for the level of the hospital's perinatal center designation.	E	E	E	E	E	E
1.6	If maternal or neonatal air transports are accepted, then the hospital shall have a heliport, helipad, or access to a helicopter landing site near the hospital.	NA	NA	NA	E	E	E
1.7	The hospital shall provide readily available specialized maternal and neonatal transport capability and have extensive statewide perinatal educational outreach programs in both specialties.	NA	NA	NA	O	O	E
STANDARD II.	**OBSTETRICAL UNIT CAPABILITIES**						
2.1	The hospital must demonstrate its capability of providing uncomplicated and complicated obstetrical care through written standards, protocols, or guidelines, including those for the following:						
a)	unexpected obstetrical care problems;	E	E	E	E	E	E
b)	fetal monitoring, including internal scalp electrode monitoring;	E	E	E	E	E	E
c)	initiating a cesarean delivery within 30 minutes of the decision to deliver;	E	E	E	E	E	E

	I	IIA	IIB	IIIA	IIIB	IIIC
d) selection and management of obstetrical patients at a maternal risk level appropriate to its capability, or	E	E	E	E	E	E
management of all obstetrical patients	NA	NA	NA	NA	NA	E
2.2 The hospital must be capable of providing critical care services appropriate for obstetrical patients, as demonstrated by having a critical care unit and a board-certified critical care specialist as an active member of the medical staff.	NA	O	O	O	E	E
2.3 The hospital must have a written plan for initiating maternal transports to an appropriate level.	E	E	E	E	E	E
2.4 If maternal transports are accepted from other institutions, then a written protocol for the acceptance of maternal transports must be in place.	NA	NA	NA	E	E	E
STANDARD III. NEONATAL UNIT CAPABILITIES						
3.1 The hospital must demonstrate its capability of providing uncomplicated and complicated neonatal care through written standards, protocols, or guidelines, including those for the following:						
a) resuscitation and stabilization of unexpected neonatal problems according to Neonatal Resuscitation Program (NRP) guidelines;	E	E	E	E	E	E
b) selection and management of neonatal patients at a neonatal risk level appropriate to its capability, or	E	E	E	E	E	E
management of all neonatal patients, including those requiring advanced modes of neonatal ventilation and life-support, pediatric subspecialty services, and pediatric subspecialty surgical services such as pediatric	NA	NA	NA	NA	NA	E

	I	IIA	IIB	IIIA	IIIB	IIIC
cardio-thoracic open-heart surgery and pediatric neurosurgery.						
STANDARD IV. OBSTETRIC PERSONNEL						
LEADERSHIP						
4.1 A physician board-certified or an active candidate for board-certification in obstetrics/gynecology or family medicine with privileges for obstetrical care shall be a member of the medical staff and have responsibility for obstetrical services.	E	NA	NA	NA	NA	NA
4.2 A physician board-certified in obstetrics and gynecology shall be a member of the medical staff and have responsibility for obstetrical services.	O	E	E	E	E	E
4.3 a) A physician (or physicians) board-certified or an active candidate for board-certification in maternal-fetal medicine shall be a member of the medical staff and have full-time responsibility for high-risk obstetrical services.	NA	O	O	O	E	E
b) If maternal transports are accepted, then physician (or physicians) board-certified or an active candidate for board-certification in maternal-fetal medicine shall be a member of the medical staff and have full-time responsibility for high-risk obstetrical services.	NA	NA	NA	E	E	E
COVERAGE FOR URGENT OBSTETRICAL ISSUES						
4.4 For a hospital without a physician board-certified in maternal-fetal medicine on the medical staff, there is a written arrangement with a program to provide a consultant who is board-certified in maternal-fetal medicine to be available 24 hours a day.	E	E	E	E	NA	NA

		I	IIA	IIB	IIIA	IIIB	IIIC
4.5	a) The hospital shall have a maternal-fetal medicine physician on the medical staff, in active practice and, if needed, in-house urgently.	O	O	O	O	E	E
	b) If maternal transports are accepted, then the hospital shall have a maternal-fetal medicine physician on the medical staff, in active practice and, if needed, in-house urgently.	NA	NA	NA	E	E	E
4.6	A physician or certified nurse-midwife (with obstetrical privileges) shall be readily available to the delivery area when a patient is in active labor.	E	NA	NA	NA	NA	NA
4.7	A physician board-certified or an active candidate for board-certification in obstetrics/gynecology or family medicine (with obstetrical privileges) shall be readily available to the delivery area when a patient is in active labor.	O	E	E	E	NA	NA
4.8	A physician board-certified or an active candidate for board-certification in obstetrics and gynecology shall be present in-house 24 hours a day and readily available to the delivery area when a patient is in active labor.	O	O	O	O	E	E
4.9	A physician or certified nurse-midwife (with obstetrical privileges) shall be present at all deliveries.	E	E	E	E	E	E
STANDARD V. PEDIATRIC PERSONNEL							
LEADERSHIP							
5.1	A physician board-certified in pediatrics or family medicine shall be a member of the medical staff, have privileges for neonatal care, and have responsibility for neonatal unit services.	E	NA	NA	NA	NA	NA
5.2	A physician board-certified in pediatrics shall be a member of the medical staff,	O	E	E	E	E	E

		I	IIA	IIB	IIIA	IIIB	IIIC
	have privileges for neonatal care, and have responsibility for neonatal unit services.						
5.3	A physician (or physicians) board-certified in neonatal-perinatal medicine shall be a member of the medical staff and have full-time responsibility for neonatal special care or intensive care unit services.	NA	O	E	E	E	E
COVERAGE FOR URGENT NEONATAL ISSUES							
5.4	For a hospital without a physician board-certified in neonatal-perinatal medicine on staff, there shall be a written arrangement with a program to provide a consultant who is board-certified in neonatal-perinatal medicine available 24 hours a day.	E	E	NA	NA	NA	NA
5.5	Neonatal Resuscitation Program (NRP) trained professional(s) with experience in acute care of the depressed newborn and skilled in neonatal endotracheal intubation and resuscitation shall be immediately available to the delivery and neonatal units.	E	E	E	E	E	E
5.6	A physician with pediatric training beyond post graduate year two, a nurse practitioner or physician assistant with privileges for neonatal care shall be immediately available when an infant requires Level II neonatal services such as assisted ventilation, FiO2 > 40%, or cardiovascular support.	NA	E	E	NA	NA	NA
5.7	a) A physician with pediatric training beyond post graduate year two, a nurse practitioner or physician assistant with privileges for neonatal care shall be readily available 24 hours a day. There will be personnel in-house qualified to manage a neonatal emergency at all times.	NA	O	E	E	NA	NA
	b) A physician with pediatric training beyond post graduate year two, a nurse practitioner or physician assistant with privileges for neonatal care shall	NA	O	O	O	E	E

	I	IIA	IIB	IIIA	IIIB	IIIC
be present in-house 24 hours a day and assigned to the delivery area and neonatal units and not shared with other units in the hospital.						
5.8 A physician board-certified or an active candidate for board certification in neonatal-perinatal medicine shall be available to be present in-house within 30 minutes.	NA	NA	O	E	E	E
NEONATAL SUBSPECIALTY CARE						
5.9 The hospital shall have written pediatric cardiology and pediatric surgery consultation and referral agreements in place.	O	E	NA	NA	NA	NA
5.10 The hospital shall have on staff an ophthalmologist with experience in neonatal retinal examination and a written consulting relationship with pediatric cardiologist(s) and pediatric surgeon(s).	NA	O	E	E	E	NA
5.11 a) The hospital shall have the following pediatric specialists on staff, in active practice and, if needed, in-house urgently: cardiology, neurology, genetics.	NA	NA	O	O	E	E
b) The hospital shall have pediatric general surgeon(s), and the following pediatric specialists on staff, in active practice and, if needed, in-house urgently: hematology, endocrinology, pulmonary, gastrointestinal, renal.	NA	NA	O	O	O	E
5.12 The hospital shall have the following pediatric surgical subspecialists on staff, in active practice and, if needed, in-house urgently: neurosurgery, cardiothoracic surgery, orthopedic surgery, plastic surgery, ophthalmology.	NA	NA	O	O	O	E
STANDARD VI. OTHER PERSONNEL						

		I	IIA	IIB	IIIA	IIIB	IIIC
6.1	An anesthesiologist or nurse-anesthetist shall be available so that cesarean delivery may be initiated within 30 minutes of the decision to deliver.	E	E	E	E	E	E
6.2	A physician board-certified or an active candidate for board-certification in anesthesiology or a nurse-anesthetist (working under the supervision of a physician board-certified or an active candidate for board certification in anesthesiology) shall be readily available to the delivery area when a patient is in active labor.	O	E	E	E	NA	NA
6.3	A physician board-certified or an active candidate for board-certification in anesthesiology shall be present in-house 24 hours a day, readily available to the delivery area.	O	O	O	O	E	E
6.4	If the hospital performs neonatal surgery, then a board-certified anesthesiologist with experience in neonatal anesthesia shall be present for the surgery.	NA	NA	NA	E	E	E
6.5	The hospital shall have a physician on the medical staff with privileges for providing critical interventional radiology services for:						
	a) obstetrical patients	O	O	O	E	E	E
	b) neonatal patients	NA	NA	NA	NA	O	E
6.6	The hospital shall have obstetric and neonatal diagnostic imaging available 24 hours a day, with interpretation by physicians with experience in maternal and/or neonatal disease and its complications.	E	E	E	E	E	E
6.7	The hospital shall have a registered dietician or other health care professional with knowledge of and experience in adult and neonatal parenteral/enteral high-risk management on staff.	O	O	O	E	E	E
6.8	The hospital shall have personnel with demonstrated competencies and	E	E	E	E	E	E

		I	IIA	IIB	IIIA	IIIB	IIIC
	protocols for lactation support.						
6.9	The hospital perinatal program shall have a medical social worker with a Master's degree and experience in perinatal services on staff (i.e., a LCSW or Licensed Clinical Social Worker).	E	E	E	E	E	E
6.10	The hospital shall have respiratory therapists skilled in neonatal ventilator management:						
	a) available when an infant is receiving assisted ventilation	NA	NA	E	NA	NA	NA
	b) present in-house 24 hours a day	NA	NA	O	E	E	NA
	c) assigned to the NICU and not shared with other units 24 hours a day	NA	NA	NA	O	O	E
6.11	The hospital shall have genetic diagnostic and counseling services or written consultation and referral agreements in place.	E	E	E	E	E	E
6.12	The hospital shall have a pediatric neurodevelopmental follow-up program or written referral arrangements for neurodevelopmental follow-up.	O	O	O	E	E	E
6.13	A hospital shall have registered nurses with knowledge and experience in obstetrical and neonatal nursing available to the obstetrical unit and neonatal units 24 hours a day.	E	E	E	E	E	E
6.14	A hospital perinatal program shall have nurses with special expertise in obstetrical and neonatal nursing identified for staff education.	O	E	E	E	E	E
6.15	A hospital perinatal program that performs neonatal surgery shall have nurses on staff with special expertise in perioperative management of neonates.	NA	NA	NA	E	E	E
6.16	The hospital perinatal program shall have on its administrative staff a registered nurse with a Master's or higher degree in nursing or a health-related field and	O	O	O	E	E	E

		I	IIA	IIB	IIIA	IIIB	IIIC
	experience in high-risk obstetric and neonatal nursing on staff.						
6.17	The hospital must have a written plan for assuring nurse/patient ratios as per current *Guidelines For Perinatal Care*.	E	E	E	E	E	E
STANDARD VII. LABORATORY							
7.1	The laboratory must have the capability of reporting:						
	a) hematocrit, serum glucose, and blood gas within 15 minutes	E	E	E	E	E	E
	b) complete blood count, micro blood chemistries, liver functions tests, blood type and match, Coombs test, bacterial smear results, and coagulation studies (prothrombin time or PT, partial thromboplastin time or PTT, fibrinogen) within 1 hour	E	E	E	E	E	E
	c) bacterial culture results within 48 hours, with sensitivities to follow	E	E	E	E	E	E
	d) fetal scalp blood pH within 5 minutes (if fetal scalp blood pH testing is being utilized at the hospital)	O	E	E	E	E	E
	e) serum magnesium within 1 hour	O	E	E	E	E	E
	f) urine electrolytes within 6 hours	O	O	O	E	E	E
	g) special amniotic fluid tests (e.g., lecithin-sphingomyelin or L/S ratio, phosphatidylglycerol or PG) within 6 hours	O	O	O	E	E	E
	h) Group B streptococcus, hepatitis B surface antigen, RPR/VDRL, HIV, gonorrhea and Chlamydia maternal test results available before patient	E	E	E	E	E	E

		I	IIA	IIB	IIIA	IIIB	IIIC
	discharge						
7.2	Blood bank technicians shall be present in-house 24 hours a day.	O	E	E	E	E	E
7.3	For hospitals without blood bank technicians in-house 24 hours a day, technicians shall be present in the hospital within 30 minutes. Emergency transfusion capability for mothers and babies shall be available 24 hours a day.	E	NA	NA	NA	NA	NA
7.4	The hospital must have either referral arrangements or onsite capability for molecular, cytogenetic, and biochemical genetic testing available.	O	O	O	O	E	E
STANDARD VIII. DIAGNOSTIC IMAGING CAPABILITIES							
8.1	Portable obstetric ultrasound equipment must be present in the delivery area.	O	E	E	E	E	E
8.2	If portable obstetric ultrasound equipment is not present in the delivery area, then the equipment must be available to the delivery area.	E	NA	NA	NA	NA	NA
8.3	Portable x-ray equipment must be available to the neonatal units.	E	E	E	E	E	E
8.4	Portable head ultrasound for newborns must be available to the neonatal units.	O	E	E	E	E	E
8.5	Computerized tomography (CT) capability must be available on campus.	O	O	O	O	E	E
8.6	Magnetic resonance imaging (MRI) capability, with the services of appropriate support staff, must be available on campus.	O	O	O	O	E	E
8.7	Neonatal echocardiography equipment and experienced technician must be available on campus as needed with interpretation by pediatric cardiologist.	O	O	O	E	E	E
8.8	The hospital must have a pediatric cardiac catheterization laboratory and appropriate staff.	O	O	O	O	O	E

		I	IIA	IIB	IIIA	IIIB	IIIC
8.9	The hospital must have equipment for performing interventional radiology services for:						
	a) obstetrical patients	O	O	O	E	E	E
	b) neonatal patients	NA	NA	NA	NA	O	E
STANDARD IX. EQUIPMENT							
9.1	The hospital must have all of the following equipment and supplies immediately available for existing patients and for the next potential patient:	E	E	E	E	E	E
	a) O2 analyzer, stethoscope, intravenous infusion pumps						
	b) radiant heated bed in delivery room and available in the neonatal units						
	c) oxygen hood with humidity						
	d) bag and masks capable of delivering up to 100% oxygen to the infant						
	e) orotracheal tubes						
	f) aspiration equipment						
	g) laryngoscope						
	h) umbilical vessel catheters and insertion tray						
	i) cardiac monitor						
	j) pulse oximeter						
	k) phototherapy unit						
	l) doppler blood pressure for neonates						
	m) cardioversion/defibrillation capability for mothers and neonates						
	n) resuscitation equipment for mothers and neonates						
	o) individual oxygen, air, and suction outlets for mothers and neonates						
	p) emergency call system						

		I	IIA	IIB	IIIA	IIIB	IIIC
9.2	The hospital shall have a neonatal intensive care unit bed set up and equipment available at all times for an emergency admission.	O	O	O	E	E	E
9.3	The hospital shall have fetal diagnostic testing and monitoring equipment for:						
	a) non-stress and stress testing	E	E	E	E	E	E
	b) ultrasound examinations	E	E	E	E	E	E
	c) amniocentesis	O	E	E	E	E	E
9.4	The hospital must have neonatal intravascular blood pressure monitors.	O	O	E	E	E	E
9.5	The hospital must have laser coagulation capability for retinopathy of prematurity.	O	O	O	O	E	E
9.6	The hospital must have a full range of invasive maternal monitoring available to the delivery area, including equipment for central venous pressure and arterial pressure monitoring.	O	O	O	E	E	E
9.7	The hospital must have appropriate equipment (including back-up equipment) for neonatal respiratory care as well as protocols for the use and maintenance of the equipment as required by its defined level status.	O	O	E	E	E	E
9.8	The hospital must be capable of providing advanced ventilatory support for neonates of all birth weights.	NA	NA	NA	NA	O	E
STANDARD X.	**MEDICATIONS**						
10.1	Emergency medications, as listed in the *Neonatal Resuscitation Program* of the American Academy of Pediatrics/American Heart Association (AAP/AHA),	E	E	E	E	E	E

	I	IIA	IIB	IIIA	IIIB	IIIC
must be present in the delivery area and neonatal units.						
10.2 Antibiotics, anticonvulsants, surfactant, prostaglandin E1 and other emergency cardiovascular drugs must be immediately available to the neonatal units.	O	O	E	E	E	E
10.3 All emergency resuscitation medications to initiate and maintain resuscitation, in accordance with Advanced Cardiac Life Support (ACLS) guidelines, must be present in the delivery area.	E	E	E	E	E	E
10.4 The following medications must be in the delivery area or immediately available to the delivery area: a) oxytocin b) Methergine c) Prostin/15M	E	E	E	E	E	E
STANDARD XI. EDUCATION PROGRAMS						
11.1 The hospital shall have identified minimum competencies for perinatal clinical staff, not otherwise credentialed, that are assessed prior to independent practice and on a regular basis thereafter.	E	E	E	E	E	E
11.2 The hospital shall provide continuing education programs for physicians, nurses, and allied health personnel on staff concerning the treatment and care of obstetrical and neonatal patients.	E	E	E	E	E	E
11.3 A hospital that accepts maternal or neonatal primary transports shall provide continuing education programs for referring hospitals.	NA	NA	NA	E	E	E
STANDARD XII. PERFORMANCE IMPROVEMENT						

		I	IIA	IIB	IIIA	IIIB	IIIC
12.1	The hospital must have a multi-disciplinary continuous quality improvement program for improving maternal and neonatal health outcomes.	E	E	E	E	E	E
12.2	The hospital shall conduct internal perinatal case reviews which include all maternal, fetal, and neonatal deaths, as well as all maternal and neonatal transports.	E	E	E	E	E	E
12.3	The hospital shall, at an appropriate multi-disciplinary forum, periodically review the performance of the perinatal program, including trends, all deaths, all transfers, all very low birth weight infants, problem identification and solution, issues identified from the quality management process, and systems issues.	E	E	E	E	E	E
12.4	The hospital shall participate with the Department of Health and Mental Hygiene and local health department Fetal and Infant Mortality Review and Maternal Mortality Review programs.	E	E	E	E	E	E
12.5	The hospital shall participate in the collaborative collection and assessment of data with the Department of Health and Mental Hygiene and the Maryland Institute for Emergency Medical Services Systems for the purpose of improving perinatal health outcomes.	E	E	E	E	E	E
STANDARD XIII.	**POLICIES AND PROTOCOLS**						
13.1	The hospital must have written policies and protocols for the initial stabilization and continuing care of all obstetrical and neonatal patients appropriate to the level of care rendered at its facility.	E	E	E	E	E	E
13.2	The hospital must have maternal and neonatal resuscitation protocols.	E	E	E	E	E	E
13.3	The hospital shall have written guidelines for accepting or transferring mothers or neonates as “back transports” including criteria for accepting the patient and	E	E	E	E	E	E

	I	IIA	IIB	IIIA	IIIB	IIIC
patient information on required care.						
13.4 The hospital shall have a licensed neonatal transport service or written agreement with a licensed neonatal transport service.	E	E	E	E	E	E
13.5 The hospital medical staff credentialing process shall include documentation of competency to perform obstetrical and neonatal invasive procedures appropriate to its designated level of care.	E	E	E	E	E	E

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